

APPENDIX A
"CLEAN" VERSION OF EACH PARAGRAPH/SECTION/CLAIM
37 C.F.R. § 1.121(b)(ii) AND (c)(I)

SPECIFICATION:

Paragraph at page 5, line 9, to line 10:

C1 Next, the operation of the circuit of Fig. 2 will be described with reference to the drawing.

Paragraph at page 5, line 11, to page 6, line 3:

C2 Sound source signal 7 of sound source 2 to be desirably regenerated is inputted to processor module 3 before it is inputted to amplifier 4. Processor module 3 compares feedback signal 9 inputted from microphone 6 with sound source signal 7. Processor module 3 applies correction data to the sound source signal to produce a correction signal and which applied to amplifier 4 and will cause loudspeaker 5 to generate a sound (which in turn causes microphone 6 to generate a feedback signal 9) which is as close as possible to the original sound source signal 7. As a result, the system will obtain a reasonable sound intensity characteristic or the desirable effect of echo suppression. Since the sound generated by loudspeaker 5 has been corrected in real time with reference to the frequency characteristic or the reverberation characteristic characteristic of the room in which the loudspeaker [unit] 5 is located, correction signal 8 approaches sound source signal 7.

Paragraph at page 6, line 4, to line 19:

C3 Next, a concrete embodiment of the present invention will be described in detail referring to the drawings. With reference to Fig. 3, sound source 2 is any sound source such as a radio tuner, a compact disk or a sound chip of a personal computer. Processor module 3 comprises 16 bit A/D converter 31, 16 bit A/D converter 32, digital signal processor 35, 16 bit D/A converter 33, and memory 34. Amplifier 4 is on operational amplifier. It drives loudspeaker 5 to 57 mm in diameter with impedance of 8 Ω . Microphone 6 is composed of an electret condenser microphone of 9.5 mm in diameter with a flat frequency characteristic and a microphone amplifier. A cable which transmits feedback signal 9 outputted from microphone 6 is selected from a group of the noise-resistant shielding wire.

Paragraph at page 6, line 20, to line 22:

C4 Next, the operation of the embodiment of the present invention will be described in detail with reference to Fig. 3.

Paragraph at page 6, line 23, to page 8, line 2:

C5 Signal 7 from sound source 2 is converted to a digital signal by A/D converter 31 of processor module 3 and stored in memory 34. The data of all signals A/D converted within a fixed time stipulated for the reverberation and the echo are stored as the data of sound source 2 in memory 34. On the other hand, a signal processed as a regenerative signal by digital signal processor 35 of processor module 3 is further converted to an analog signal by means of D/A converter 33, amplified by amplifier 4, and applied to loudspeaker 5 which generates a corresponding sound. Microphone 6 picks up this sound, and converts it into a feedback signal 9 which is converted into a digital signal by A/D converter 32 and inputted to digital signal processor 35. Successive comparison analysis part 37 of digital signal processor 35 compares the data of sound source 2 stored in memory 34 with digital data from successive A/D converter 32, analyzes the intensity of the reverberation and the echo, corrects the conversion data stored in memory 34 and obtains a correction parameter. Regenerative signal processing part 36 adds the correction parameter to the conversion data of sound source 2 and processes the digital data to regenerate it as a regenerative signal. The difference between the data of sound source 2 and the data of feedback signal 9 is obtained as the correction parameter in serial data and the parameter is processed by adding feedback signal 9 of an opposite phase, if necessary, to obtain a fixed number of 0. The processed signal is converted to an analog signal by D/A converter 33, amplified by amplifier 4 and then sent forth from loudspeaker 5 as the sound.

CLAIMS (with indication of amended or new):

C6 3. (Amended) A loudspeaker unit adapted to the environment according to Claim 1 wherein said successive comparison analysis part performs processing by adding antiphase feedback data to said voice data so that the difference between said voice data obtained as the serial data and said feedback data becomes a fixed value or 0.

C7 Sub D9 5. (Amended) A loudspeaker unit adapted to the environment according to Claim 1 wherein, the frequency comparison of the characteristic and the comparison of the characteristic of the echo or the reverberation each including the delay time are learned by arithmetic and a signal to be sent to the loudspeaker is corrected according to the learned result.

C8 Sub D10 7. (Amended) A loudspeaker unit adapted to the environment according to Claim 1 wherein, the frequency comparison of the characteristic and the comparison of the characteristic of the echo or the reverberation each including the delay time are intermittently performed and a signal to be sent to the loudspeaker is corrected according to the comparison result.